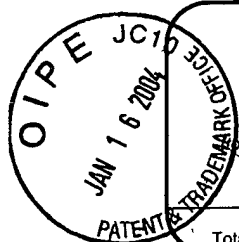


Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

8

Application Number

10/674,248

Filing Date

September 29, 2003

First Named Inventor

Paulo S. Tubel et al.

Art Unit

N/A; Confirmation No.: 3193

Examiner Name

N/A

Attorney Docket Number

014-12049-D3

## ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please Identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	Postcard; eleven (11) references
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	Remarks	
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	The Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account No. 02-0429 (014-12049-D3)	

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Kaushik P. Sriram, Reg. No. 43,150
Signature	<i>KP Sriram</i>
Date	January 12, 2004

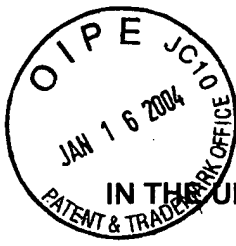
## CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Beth Pearson-Naul
Signature	<i>Beth Pearson-Naul</i>
Date	January 12, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Paulo S. Tubel et al.

§  
§  
§  
§  
§  
§  
§  
§

Group Art Unit: N/A

SERIAL NO.: 10/674,248

Examiner: N/A

FILED: September 29, 2003

TITLE: "Wellbores Utilizing Fiber Optic-  
Based Sensors and Operating  
Devices"

Confirmation No.: 3193

Atty Docket No.: 014-12049-D3

MS: DD  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, Virginia 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the references listed on the attached Form PTO-1449 be considered by the Examiner and made of record.

This Information Disclosure Statement is not to be considered as a representation that a search has been made or that no other material information as defined under 37 C.F.R. § 1.56(a) exists. The information disclosure statement submitted herewith is being filed before the mailing date of the first office action for this application.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 02-0429 (014-12049-D3).

Respectfully submitted,

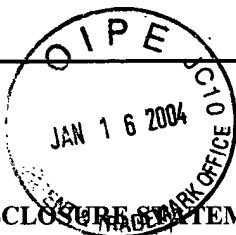
Dated: January 12, 2004

Kaushik P. Sriram, Reg. No. 43,150  
Madan, Mossman & Sriram, P.C.  
2603 Augusta, Suite 700  
Houston, Texas 77057  
Telephone: (713) 266-1130  
Facsimile: (713) 266-8510

**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

I hereby certify that this paper, along with any referred to as being attached or enclosed, is being forwarded to MS DD, Commissioner for Patents, Alexandria, Virginia 22313-1450, via the United States Postal Service, First Class Mail, prepaid on the 12th day of January, 2004.

By:   
Beth Pearson-Naul



## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

014-12049-D3

SERIAL NO.

10/674,248

APPLICANT

Paulo S. Tubel et al.

FILING DATE

September 29, 2003

GROUP / CONFIRMATION NO.

N/A / 3193

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	3,722,605	03/27/73	Isham	175	40	02/03/71
	AB	3,857,449	12/31/74	Kimura	175	26	07/05/73
	AC	4,434,654	03/06/84	Hulsing, II et al.	73	151	08/09/82
	AD	4,485,563	12/04/84	Sharp et al.	33	314	12/03/82
	AE	4,488,598	12/18/84	Duerksen	166	252	03/18/83
	AF	4,656,743	04/14/87	Thiemann et al.	33	1 H	03/08/85
	AG	4,676,313	06/30/87	Rinaldi	166	252	10/30/85

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBL. DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO	
	AH	81/01168	30.04.81	WIPO			X	
	AI	0824810768	27-09-96	EPO			X	
	AJ	96/09461	28.03.96	WIPO			X	

## OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)

	AK	Alan D. Kersey, Optical Fiber Technology 2.291-317(1996); Article No. 0036, XP-002053711; A Review of Recent Developments in Fiber Optic Sensor Technology, February 13, 1996, pages 291-317. •
	AL	Giovanni Botto, Bruno Maggioni and Adeimo Schenato, Society of Petroleum Engineers, XP-002082000, SPE 28484; Electronic, Fiber-Optic Technology: Future Options for Permanent Reservoir Monitoring; 1994, pages 215-224. •
	AM	Stephen Heath, A.M. Pritchard, On-Line Chemical Sensing Technology for Downhole and Topside Monitoring of Produced Brines; AEA Technology, XP-002082001, 1995, pages 1-19. •

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next comment to applicant



## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

014-12049-D3

SERIAL NO.

10/674,248

APPLICANT

Paulo S. Tubel et al.

FILING DATE

September 29, 2003

GROUP

N/A / 3193

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA	4,697,078	09/29/87	Randall	250	256	04/10/85
	BB	4,849,753	07/18/89	Merry	340	854	10/18/89
	BC	4,891,982	01/09/90	Norling	73	497	06/10/88
	BD	4,905,774	03/06/90	Wittrisch	175	26	05/27/87
	BE	4,994,671	02/19/91	Safinya et al.	250	255	10/04/89
	BF	5,113,070	05/12/92	Smith	250	277.21	03/29/91
	BG	5,131,477	07/21/92	Stagg et al.	175	40	01/16/91

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBL. DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO	
	BH	96/09561	03/28/96	WIPO			X	
	BI							
	BJ							

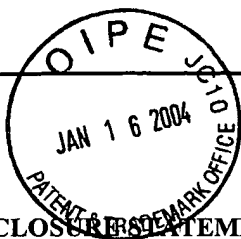
## OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)

BK	Osama S. Karaman, Chevron USA Production Company, Inc., Roy L. Kutlik, Chevron Research and Technology Company, and Ed L. Kluth, Sensor Dynamics Ltd.; Society of Petroleum Engineers, XP-002082002, SPE 35685; A Field Trial to Test Fiber Optic Sensors for Downhole Temperature and Pressure Measurements, West Coalinga Field, California; 1994, pages 351-357. *
BL	Gerhard Mutter, Dr. Herwig Malthan, Martin Hafen, & Christopher Noxon, LITEF GmbH; FOG Based Inertial Strapdown System for Online Borehole Measurement, XP-002082274, 1994, pages 681-694. *
BM	Sumio Takahashi, Yasunori Murrakami, Toshiaki Kikuchi, Ryohei Yagi and Akio Hasegawa; Simultaneous Sensing of Acoustic Wave and Temperature Using a Polarization-Maintaining Fiber; XP-000085290, 2419 Japanese Journal of Applied Physics, 28(1989)March, Suppl. 28-1, Tokyo, Japan, pages 188-190. *

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line though citation if not in conformance and not considered. Include copy of this form with next comment to applicant



## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

014-12049-D3

SERIAL NO.

10/674,248

APPLICANT

Paulo S. Tubel et al.

FILING DATE

September 29, 2003

GROUP / CONFIRMATION

N/A / 3193

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	CA	5,144,590	09/01/92	Chon	367	57	08/08/91
	CB	5,166,747	11/24/92	Schroeder et al.	356	326	06/01/90
	CC	5,351,532	10/04/94	Hager	73	153	10/08/92
	CD	5,361,854	11/08/94	Tull et al.	175	45	10/05/93
	CE	5,363,094	11/08/94	Staron et al.	340	854	12/16/92
	CF	5,363,095	11/08/94	Normann et al.	340	854	06/18/93
	CG	5,385,053	01/31/95	Włodarczyk et al.	73	705	10/06/93

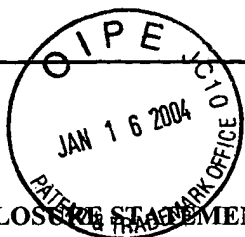
## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBL. DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO	
	CH							
	CI							
	CJ							

## OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)

	CK	F. Pigeon, S. Pelissier, A. Mure-Ravaud, H. Gagnaire, S. I. Hosaini and C. Veillas; A vibration sensor, using telecommunication grade monomode fiber, immune to temperature variations; XP-000394438, 2001a Journal de Physique, 3(1993)Septembre, No. 9, Les Ulis, FR, pages 1835-1838. •
	CL	Initiatives Online Volume 3, SP-002073713; The FlowProbe performs chemical analysis in real-time, February 1996; pages 1-2. •
	CM	Michel Dietrich; <i>Measurements of attenuation from vertical seismic profiles by iterative modeling</i> , Geophysics, Vol. 50, No. 6 (June 1985), pp. 931-949, 11 Figs., 4 Tables. •
EXAMINER		DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next comment to applicant



## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

014-12049-D3

SERIAL NO.

10/674,248

APPLICANT

Paulo S. Tubel et al.

FILING DATE

September 29, 2003

GROUP / CONFIRMATION

N/A / 3193

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	DA	5,414,507	05/09/95	Herman et al.	356	345	04/01/93
	DB	5,418,614	05/23/95	Brost et al.	356	434	04/19/93
	DC	5,503,225	04/02/96	Withers	166	250.1	10/08/92
	DD	5,517,024	05/14/96	Mullins et al.	250	254	10/05/93
	DE	5,663,559	09/02/97	Auzerais et al.	250	269.1	06/07/95
	DF	5,767,411	06/16/98	Maron	73	705	12/31/96
	DG	5,812,068	09/22/98	Wisler	340	855.5	12/12/95

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBL. DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO	
	DH							
	DI							
	DJ							

## OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)

	DK	Lasse Amundsen et al.; <i>Estimation of phase velocities and Q-factors from zero-offset, vertical seismic profile data</i> , Geophysics, Vol. 59, No. 4 (April 1994), pp. 500-517, 13 Figs. 2 Tables. •
	DL	N. C Dutta et al.; <i>Attenuation and dispersion of compressional waves in fluid-filled porous rocks with partial gas saturation (White model)-Part II: Results</i> , Geophysics, Vol. 44, No. 11 (November 1979); pp. 1789-1805, 10 Figs., 4 Tables.
	DM	

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next comment to applicant



# INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

014-12049-D3

SERIAL NO.

10/674,248

APPLICANT

Paulo S. Tubel et al.

FILING DATE

September 29, 2003

GROUP / CONFIRMATION NO.

N/A / 3193

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	EA	5,892,860	04/06/99	Maron et al.	385	12	01/21/97
	EB	5,898,517	04/27/99	Weis	356	5.09	01/15/98
	EC	6,016,702	01/25/00	Maron	73	705	09/08/97
	ED	6,065,540	05/23/00	Thomeer et al.	166	297	02/08/99
	EE	6,072,567	06/06/00	Sapack	356	32	02/12/97
	EF	6,206,108	03/27/01	MacDonald et al.	175	245	10/22/97
	EG	6,209,640	04/03/01	Reimers et al.	166	254.1	03/22/00

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBL. DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
	EH							
	EI							
	EJ							

## OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)

	EK	
	EL	
	EM	
EXAMINER		DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next comment to applicant

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

014-12049-D3

SERIAL NO.

10/674,248

APPLICANT

Paulo S. Tubel et al.

FILING DATE

September 29, 2003

GROUP

N/A / 3193

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	FA	6,268,911	07/31/01	Tubel et al.	356	72	05/01/98
	FB	5,214,384	05/25/93	Sprunt et al.	324	351	07/24/91
	FC	5,963,508	10/05/99	Withers	367	38	02/14/94
	FD	6,302,204	10/16/01	Reimers et al.	166	250.03	06/27/00
	FE	6,532,839	03/18/03	Kluth et al.	73	866.5	11/02/99
	FF						
	FG						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBL. DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
	FH							
	FI							
	FJ							

## OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)

	FK	
	FL	
	FM	
EXAMINER		DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line though citation if not in conformance and not considered. Include copy of this form with next comment to applicant